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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/573,224	03/24/2006	Jan Alexis Robrecht D'Aubioul	PRD2114USPCT	5051
27777 7590 02/15/2008 PHILIP S. JOHNSON JOHNSON & JOHNSON ONE JOHNSON & JOHNSON PLAZA NEW BRUNSWICK, NJ 08933-7003			EXAMINER HELLER, TAMMIE K	
			ART UNIT 3766	PAPER NUMBER
			MAIL DATE 02/15/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/573,224	<b>Applicant(s)</b> D'AUBIOUL ET AL.	
	<b>Examiner</b> TAMMIE HELLER	<b>Art Unit</b> 3766	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 March 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/24/06</u>   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on March 24, 2006 has been acknowledged and is being considered by the Examiner.

### ***Drawings***

3. The drawings are objected to because the drawings, specifically Figure 6, are dark, faded, and difficult to read. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required

corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

4. Claims 11, 12, and 26 are objected to because of the following informalities:
  - a. Claim 11 is an improper dependent claim. MPEP 608.01(n) details that a dependent claim is considered an improper dependent claim if it does not pass the infringement test. Specifically, because claim 11 can be infringed upon without infringing upon independent claim 1, from which it depends, claim 11 is considered to be an improper dependent claim.
  - b. Claims 11, 12, and 26 are awkwardly worded and it is therefore difficult to determine what Applicant regards as his invention. These claims should be re-written to better explain Applicant's invention.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
6. Claims 9, 11, 12, and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
7. The limitation in claim 9 of "aligning complexes on an R-top feature of each complex" is not thoroughly explained in the specification as to what exactly constitutes an R-top feature of a complex. Therefore, it is unknown what Applicant intends to claim

with this limitation. For the purposes of this Office Action, the Examiner has considered an R-top feature to be an ECG peak.

8. Regarding claims 11, 12, and 26, it is unclear as to what the Applicant considers the invention. Claims 11 and 12 are directed to a computer apparatus and a computer readable medium adapted to carry out the method steps of claim 1. However, it is unclear whether applicant intends to claim a computer apparatus/computer readable medium or further limit the method claim. Claim 26 is directed to a computer readable medium that is arranged to provide the apparatus of claim 18. However, it is unclear how a computer readable medium is capable of providing an apparatus that includes an analyzer and an editor.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Arand et al. (U.S. Patent No. 5,682,900), herein Arand. Regarding claims 1, 7, and 11-14, Arand discloses a method and apparatus for obtaining heartbeat measurements that includes performing the method steps of selecting a set of complexes, identifying from the set a subset which satisfy a similarity criterion, calculating a representative complex, and establishing one or more heart beat parameters based on the representative

complex (see Figure 10). It can be seen from Figure 2 that Arand discloses a computer apparatus and computer readable medium to carry out the method.

11. Regarding claims 2 and 5, Arand discloses identifying those complexes which are similar to an average of the set (see col. 11, ln. 4-16).

12. Regarding claims 3 and 4, Arand discloses that the similarity criterion may be a threshold based on the average (see Figure 8 and col. 11, ln. 16-20).

13. Regarding claims 6 and 17, Arand discloses analyzing the heart beat signal to identify and select genuine heart beat complexes (see Figure 8).

14. Regarding claim 8, Arand discloses comparing a correlation coefficient with a threshold value (see Figure 6).

15. Regarding claim 9, Arand discloses aligning the complexes based on an ECG peak (read: R-top feature) (see Figure 9).

16. Regarding claim 10, Arand discloses that the heart beat signal is an ECG signal (see Abstract).

17. Regarding claims 15 and 16, Arand discloses aligning the complexes and establishing a similarity criterion as a threshold (see Figure 8 and col. 11, ln. 4-20).

18. Claims 18-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Xue et al. (EP 1110503, cited by Applicant), herein Xue. Regarding claims 18 and 26, Xue discloses a method and apparatus for analyzing a heart beat signal that includes an analysis engine and an editor (see Figure 2 and paragraphs 27-29). Xue also discloses a computer readable medium (see paragraphs 20-22).

19. Regarding claims 19, 20, 22, and 25, Xue discloses that the analysis engine is adapted to automatically decide which complexes to include and the editor is adapted to allow the user to change this decision by selecting whether a complex should be included, not included, or subjectively included through a display (see paragraphs 27, 28, and 37).

20. Regarding claim 21, Xue discloses that the representative complex is an average (see paragraph 27 and Figure 2).

21. Regarding claims 23 and 24, Xue discloses that the editor is adapted to display the representative heart beat complex including feature markers that may be moved by the user (see Figure 3).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TAMMIE HELLER whose telephone number is (571)272-1986. The examiner can normally be reached on Monday through Friday from 7am until 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl H. Layno can be reached on 571-272-4949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3766

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tammie Heller/  
Examiner, Art Unit 3766

/Carl H. Layno/  
Supervisory Patent Examiner, Art Unit 3766